CLAIMS

1. A method of designing heat seal width which comprises;

(1) heat-sealing a test piece of a sheet to be heat-sealed at a temperature lower than fusion temperature of heat seal portion of the sheet,

(2) heat-sealing another test piece of the sheet at a temperature at or higher than the fusion temperature,

(3) pulling to peel heat-sealed portion of each test piece, and measuring pull strength variation with peel length,

(4) calculating peel energy in various peel length of the test piece heat-sealed at a temperature lower than fusion temperature of heat seal portion of the sheet by integrating the pull strength variation,

(5) calculating also peel energy of the test piece heat-sealed at the temperature of or higher than the fusion temperature by integrating the pull strength variation up to rupture at heat-sealed portion, and

(6) setting heat seal width at a peel length having a peel energy higher than the peel energy of the test piece heat-sealed at a temperature of or higher than the fusion temperature

2. The method of claim 1 wherein the temperature lower than fusion temperature is lower than the fusion temperature by 1 to 20 ℃.

3. The method of claim 1 wherein the temperature at or

higher than the fusion temperature is at or higher than the fusion temperature by 10 ℃.

4. The method of claim 1 wherein the temperature lower than fusion temperature and the temperature at or higher than the fusion temperature is measured of welding face to be bonded by heat-sealing.

5. A method of designing heat seal width which comprises;

(1) repeating heat-sealing of test pieces of a sheet to be heat-sealed with varying heat-sealing temperature around fusion temperature of heat seal portion of the sheet,

(2) pulling to peel heat-sealed portion of each test piece, and measuring pull strength variation with peel length,

(3) calculating peel energy in various peel length of each test piece at each heat-sealing temperature lower that the fusion temperature by integrating the pull strength variation to determine a variation of the peel energy with the heat-sealing temperature at various peel length,

(4) calculating also peel energy of at least one test piece heat-sealed at a temperature of or higher than the fusion temperature by integrating the pull strength variation up to rupture at heat-sealed portion, and

(5) setting heat seal width at a peel length having a peel energy higher than the peel energy of the test piece heat-sealed at a temperature of or higher than the fusion temperature.

6. The method of claim 5 wherein the peel energy of the

test piece heat-sealed at a temperature of or higher than the fusion temperature is a maximum peel energy therein.

7. A method of distinguishing peel seal with rupture seal which comprises;

(1) repeating heat-sealing of test pieces of a sheet to be heat-sealed obliquely with varying heat-sealing temperature around the fusion temperature of heat seal portion of the sheet,

(2) pulling to peel heat-sealed portion of each test piece, and measuring pull strength variation with peel length to determine a maximum pull strength,

(3) plotting the maximum pull strength against heat-sealing temperature, and

(4) determining the position of the pull strength lower than the peak of the maximum pull strength by 20 % which is set from experimental results by considering experimental error on the side of higher heat-sealing temperature than the peak.

8. The method of claim 7 wherein angle of the heat-sealed portion is 10 to 70 degrees against cross direction of the test piece.

9. A method of designing heat seal width which comprises;

(1) repeating heat-sealing of test pieces of a sheet to be heat-sealed obliquely with varying heat-sealing temperature around the fusion temperature of heat seal portion of the sheet,

(2) pulling to peel heat-sealed portion of each test piece, and measuring pull strength variation with peel length to determine a maximum pull strength,

(3) plotting the maximum pull strength against heat-sealing temperature, and

(4) determining the position of the pull strength lower than the peak of the maximum pull strength by 20 % which is set from experimental results by considering experimental error on the side of higher heat-sealing temperature than the peak.

(5) calculating peel energy in various peel length of the test piece at a temperature lower than the position by integrating the pull strength variation,

(6) calculating also peel energy of the test piece at a temperature at the position or higher than that by integrating the pull strength variation up to rupture at heat-sealed portion, and

(7) setting heat seal width at a peel length having a peel energy higher than the peel energy obtained in (6).